

Navy Case No. 82,627

PATENTS

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of :  
Louis F. Aprigliano et al. :  
Serial No. 09/656,017 : Group Art Unit: 1722  
Filed: Sept. 7, 2000 : Examiner: K. Lin  
For: METHOD OF PRODUCING CORROSION : CONFIRMATION NO. 2288  
RESISTANT METAL ALLOYS WITH :  
IMPROVED STRENGTH AND DUCTILITY :

APPEAL BRIEF

Commissioner for Patents  
Washington, D.C. 20231

Sir:

This brief relates to an appeal noted Oct. 30, 2002, seeking review of the Examiner's decision finally rejecting claims 5, 6, and 9.

(1) REAL PARTY IN INTEREST

The party of interest in the above entitled application is the United States of America represented by the Secretary of the Navy as assignee of the entire interest in the subject invention of the above named inventor.

(2) RELATED APPEALS AND INTERFERENCES

There are no prior appeals or interferences related to this appeal.

(3) STATUS OF CLAIMS

Claims 5, 6 and 9 are presently pending and on appeal. Such claims stand finally rejected under 35 U.S.C. 103(a).

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(4) STATUS OF AMENDMENTS

Following the Final Office action dated July 30, 2002, a Rule 116 amendment was submitted on Sept. 12, 2002, proposing cancellation of claims 1, 2, 3, 7 and 8 and rewriting of claim 9, while retaining claim 6 dependent from claim 5. According to the Advisory Action dated Oct. 3, 2002, such proposed amendment was entered upon noting of this appeal.

(5) SUMMARY OF THE INVENTION

A concise explanation of the subject invention covered by the claims 5, 6 and 9 on appeal is as follows:

The subject invention relates to deposit of a ductile alloy onto a moving surface to be coated. The ductile alloy has a selected base metal such as nickel to be heated, and a selected corrosion-resisting material component constituting between 48% and 52% of the ductile alloy. The selected base metal is heated to form a molten stream for deposit by casting as spray droplets onto the surface to be coated, to thereby effect an increase in yield strength of the ductile alloy from a value less than 145 ksi. Such casting is effected by use of a selected inert cover gas such as Nitrogen, to atomize the molten stream into the spray droplets, thereby improving the ductility of the ductile alloy from a value less than 25% tensile elongation.

(6) ISSUES

Presented for review in this appeal are final rejections of claims 5, 6 and 9 under 35 U.S.C. 103(a), all predicated on alleged teachings in the Combs patent of record, relied on together with other prior art references to reject the claims. The issues are therefore associated with the Combs patent, as follows:

a) Does the Combs patent teachings relied on for rejection under 35 U.S.C. 103(a) actually cover all of the claim limitations to which they are applied?

b) Is the subject invention to which claims 5, 6 and 9 on appeal are limited by recitations therein, obvious under 35 U.S.C. 103(a) based on the prior art references applied, despite the inadequacy of the teachings in the Combs patent relied on?

(7) GROUPING OF CLAIMS

Claims 5, 6 and 9 on appeal relate to a method of coating a surface with a ductile alloy.

(8) ARGUMENT

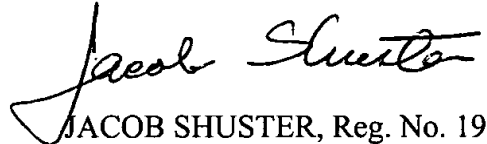
The Combs patent of record relied on fails to explicitly suggest, teach or indicate selection of a cover gas to "increase in strength the ductile alloy from a yield strength of less than 145 ksi-- with ductility improved from less than 25% tensile strength", pursuant to the present invention under consideration as expressly set forth in claims 5, 6 and 9 under appeal. In the Office communication (paper No. 24) submitted after filing of the Notice of Appeal on Oct. 30, 2002, the Examiner asserted that the claim limitations of claims 5, 6 and 9 under appeal were dealt with on page 4, paragraph 6 in the Final Office action dated July 30, 2002, even though the Examiner conceded that such "Office action does not comment on the claim limitations". Nevertheless, the Request To Reopen Prosecution, dated Oct. 17, 2002, was denied for which reason this appeal was undertaken.

Based on the foregoing referred to record in this case, a significant issue to be considered in this appeal is: whether the disclosure in the Combs patent relied on to support the final rejections under 35 U.S.C. 103(a), explicitly suggests, teaches or motivates selection of an inert cover gas which will effect "increase in strength of the ductile alloy from a yield strength of less than 145 ksi", as set forth in claim 5 under appeal, and "with ductility improved from less than 25% tensile elongation as set forth in claim 6 under appeal dependent from claim 5. Similar distinguishing limitations are set forth in claim 9 under appeal. In as much as it is evident that the Combs patent does not disclose, teach or suggest any of the aforesaid limitations of claims 5, 6

and 9 on appeal, as conceded by the Examiner in paper No. 24, as referred to herein, reversal of the final rejections of claims 5, 6 and 9 under 35 U.S.C. 103(a) is believed to be in order.

The \$320.00 Appeal Brief Fee is requested to be charged to Deposit Account No. 50-0958. Please charge any additional fee or credit any overpayment to the same deposit account. (Triplicate copies of this Brief is enclosed herewith).

Respectfully submitted,



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(9) APPENDIX

The claims on appeal are as follows:

5. In a method of casting a ductile alloy having a base metal by heating thereof to produce a molten stream that is atomized into a spray of droplets directed onto a moving substrate surface; the improvement residing in: selecting a corrosion resisting material as a component of the alloy undergoing said heating; exclusively limiting said alloy to the base metal and the corrosion resisting material; and utilizing an inert cover gas to atomize the molten stream into said spray of droplets for deposit onto said surface to increase in strength the ductile alloy.
6. The method as defined in claim 5, wherein said base metal is nickel, the corrosion resisting material is chromium and the inert cover gas is nitrogen.
9. In a method of coating a surface with a ductile alloy; the improvement residing in: casting onto said surface a molten stream exclusively limited to: a corrosion-resisting material constituting between 48% and 52% of the ductile alloy undergoing heating during said casting for increase in strength thereof and a base metal; and selecting an inert cover gas to atomize the molten stream into a spray of droplets for deposit onto the surface thereby effecting said increase in strength of the ductile alloy during said casting from a yield strength of less than 145 ksi.